



STATE OF MARYLAND

DMMH

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November 23, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:46 Reporting for the week ending 11/20/10 (MMWR Week #46)

CURRENT HOMELAND SECURITY THREAT LEVELS

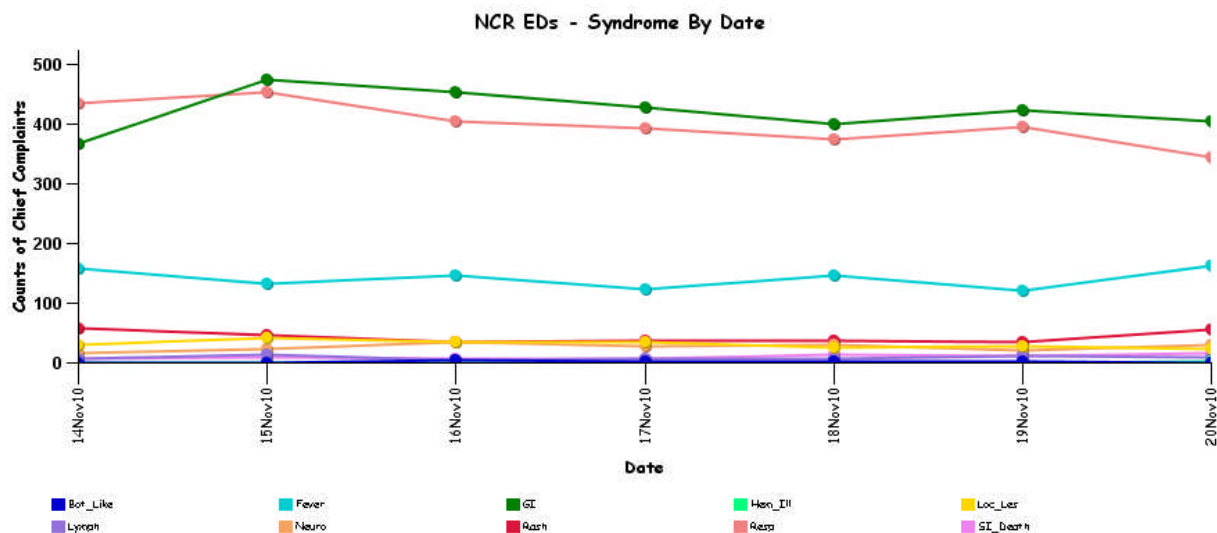
National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

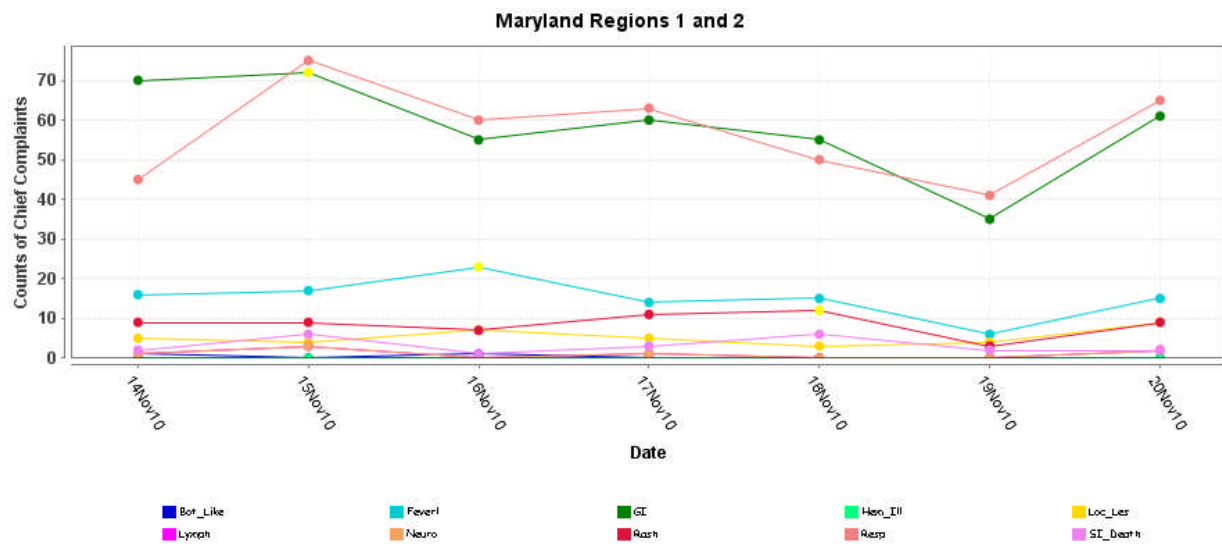
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

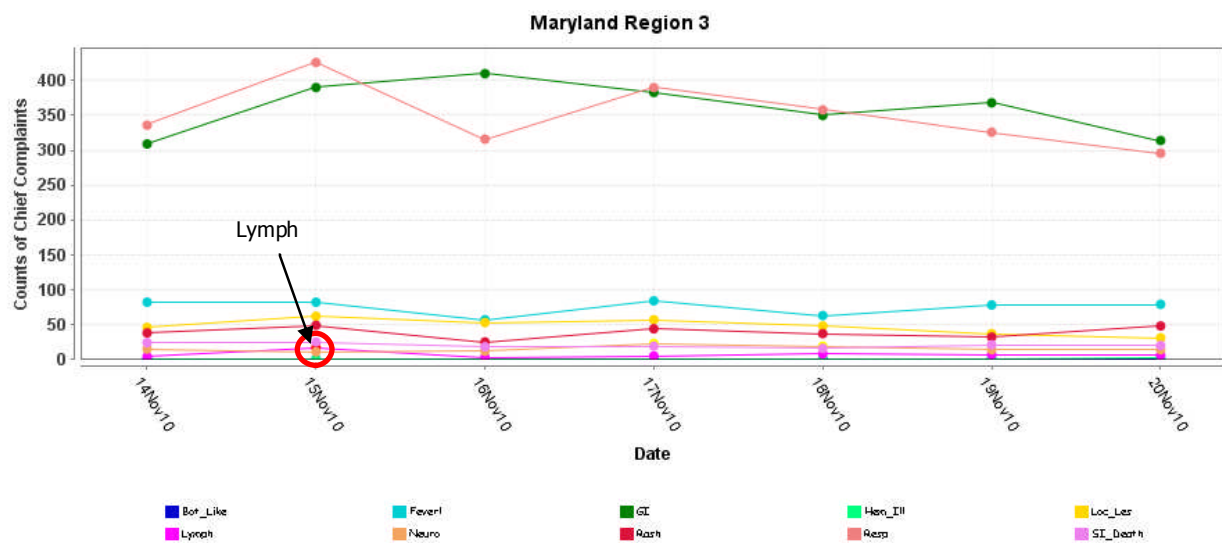


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

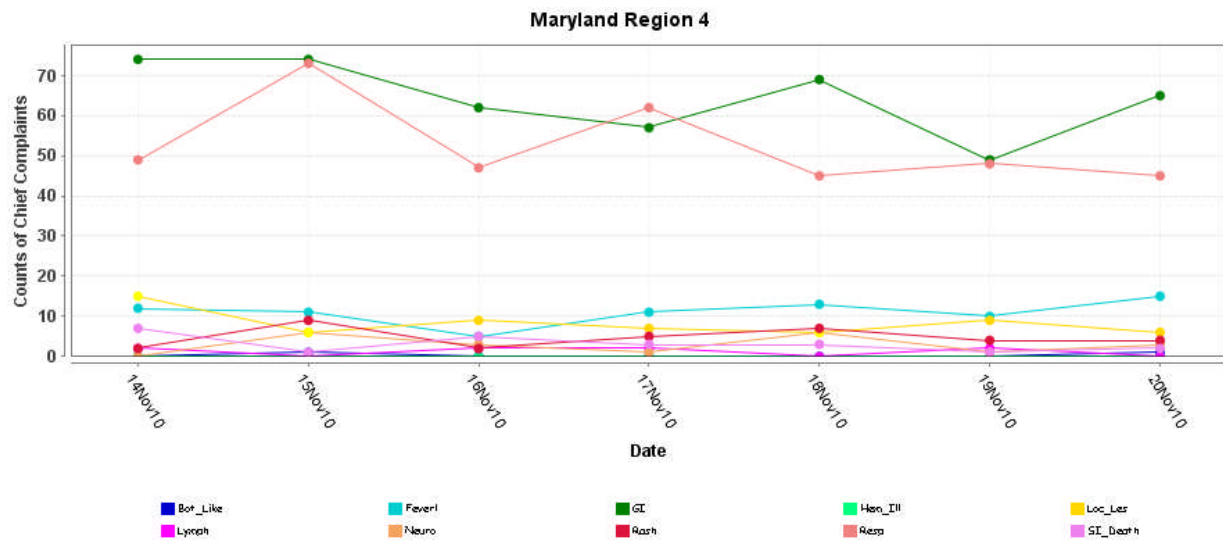
MARYLAND ESSENCE:



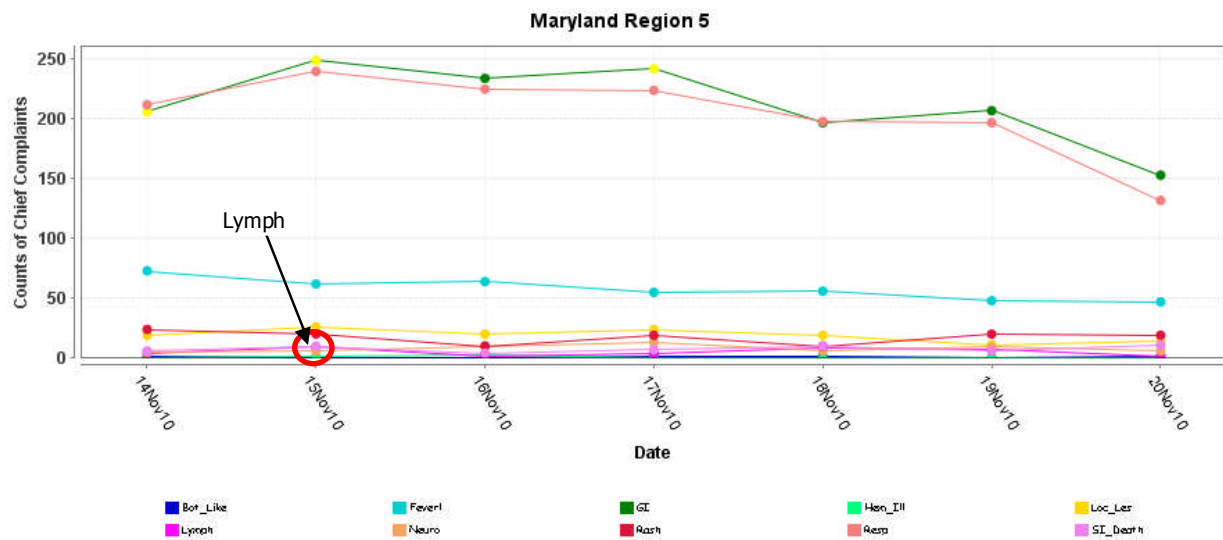
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

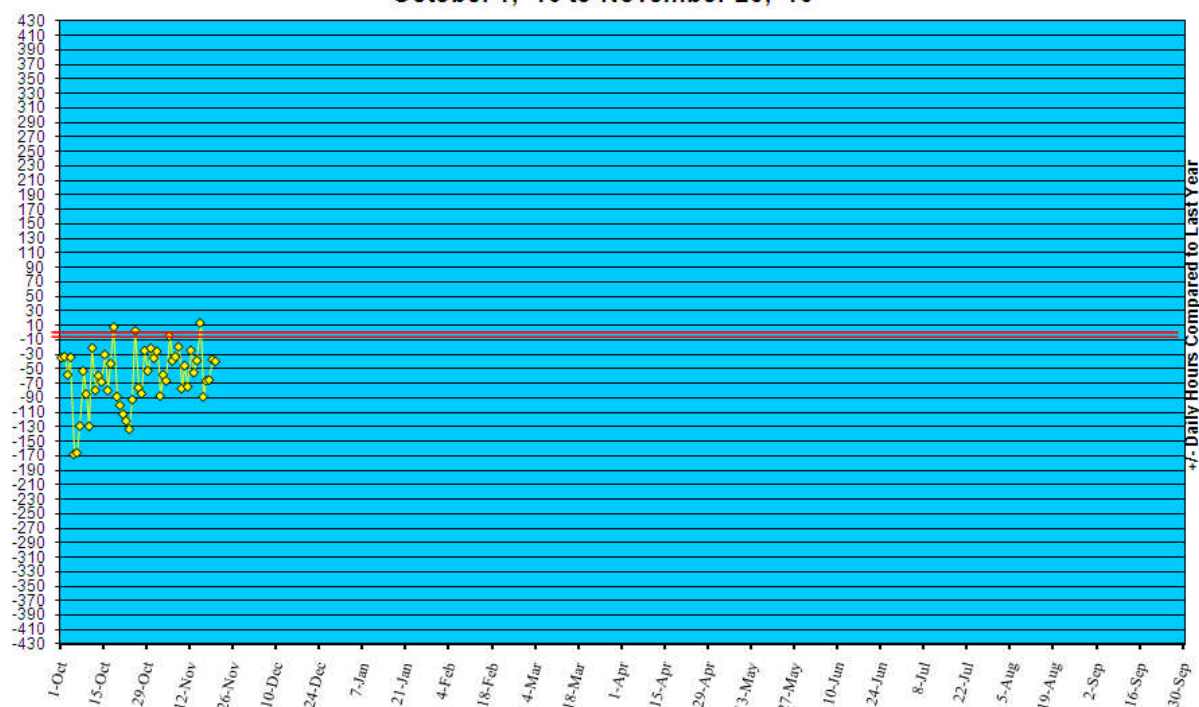


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to November 20, '10



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in October 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (November 14 – November 20):	17	0
Prior week (November 7 – November 13):	10	0
Week# 46, 2009 (November 15 – November 21, 2009):	13	0

2 outbreaks were reported to DHMH during MMWR Week 45 (November 7 – November 13, 2010):

2 Respiratory illness outbreaks:

- 1 outbreak of LEGIONNAIRE'S DISEASE in a Nursing Home
- 1 outbreak of PNEUMONIA in a Nursing Home

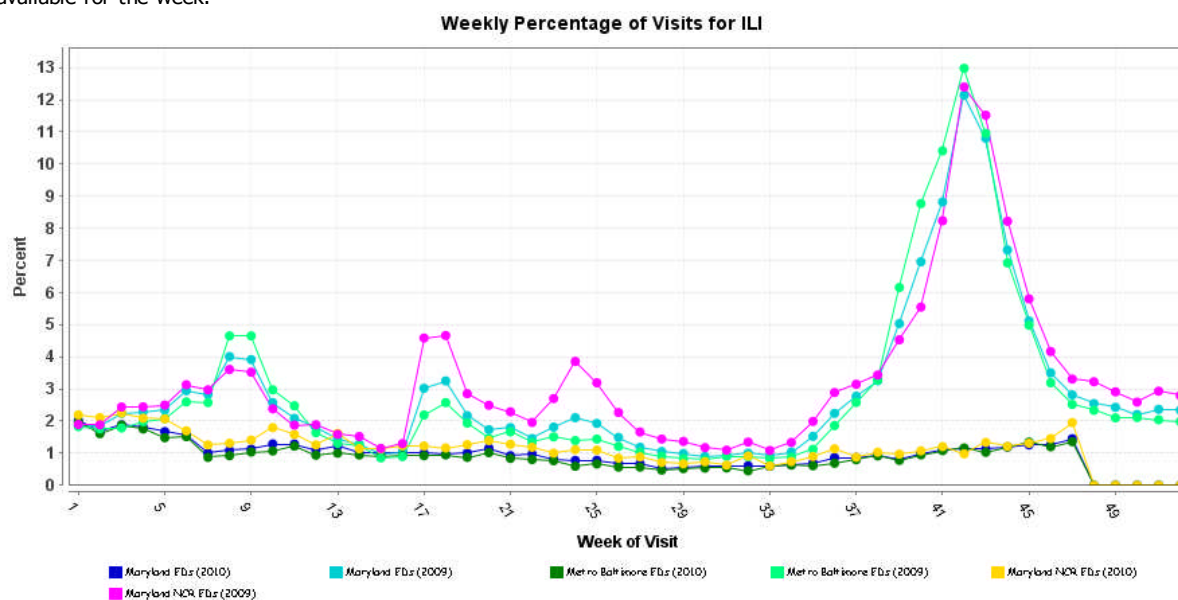
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was sporadic with minimal intensity for Week 46.

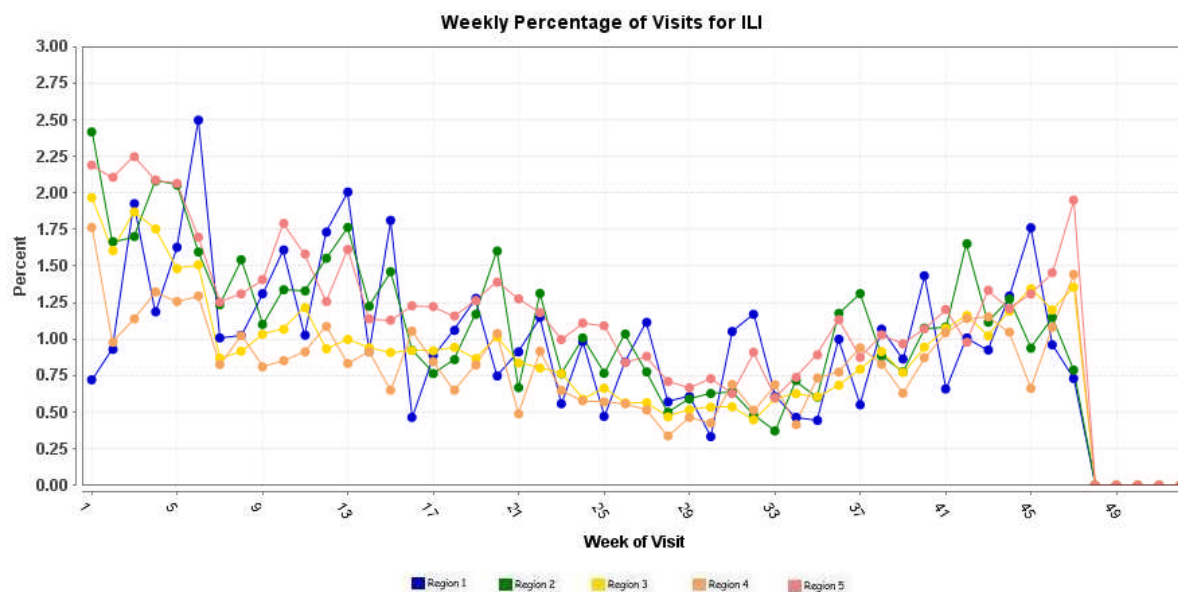
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



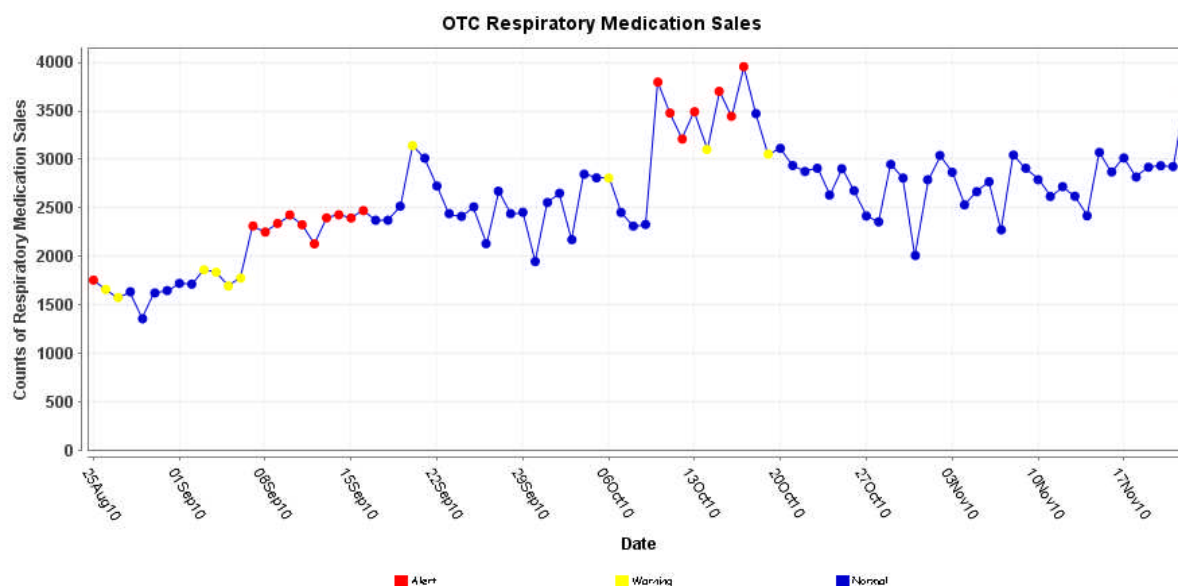
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of November 19, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 508, of which 302 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, HUMAN (HONG KONG): 19 Nov 2010, In response to the recent identification of H5N1 avian influenza in a 59-year-old woman, Hong Kong officials are stepping up their inspections of poultry farms, tests on live birds, and cleaning of poultry farms and markets, Dr York Chow, Hong Kong's secretary for food and health, said today [18 Nov 2010] in a press release. He said public hospitals are taking precautions such as shortening visiting hours and asking visitors to wear masks. The woman is still in serious condition and has been transferred to Princess Margaret Hospital. Chow said initial tests on the H5N1 virus that sickened her reveal that it belongs to clade 2.3.2, common in Asia. He said the finding doesn't pinpoint where the woman, who had recently traveled to the Chinese mainland, was infected, though the flu incubation period suggests she probably contracted the virus during her trip. In other developments, Hong Kong's Center for Health Protection (CHP) today [18 Nov 2010] released a detailed clinical report about the woman's infection in the latest issue of its Communicable Diseases Watch [see http://www.chp.gov.hk/files/pdf/cdw_v7_24.pdf]. After she started having symptoms she visited the doctor and the emergency department before her hospital admission on Sun 14 Nov 2010. When her condition deteriorated she was transferred to an intensive care unit and treated with oseltamivir (Tamiflu). She has not received mechanical ventilation. Her close contacts are under quarantine, and some have been given prophylaxis. So far all respiratory specimens from close contacts have tested negative for the H5N1 virus.

AVIAN INFLUENZA, LPNAI, H5N2, DUCK, GOOSE (GERMANY): 14 Nov 2010, Low pathogenic (LP) avian influenza H5N2 has been detected in a mixed, medium-sized poultry farm with free-range ducks and geese in the north east of Germany. Active virus infections were confirmed after initial detection of H5-seropositive ducks in the frame of routine monitoring activities. The outbreak occurs at a time of unusually high prevalence of LP H5 infections in wild anatis in Germany. Since early October 2010, LP H5 is, next to H3, the most frequently encountered avian influenza virus (AIV) subtype seen in the migrating wild bird population throughout the country. A genetically very closely related H5N2 virus has also been detected in a flock of sentinel mallard ducks kept by the Friedrich-Loeffler-Institut at the Baltic Sea coast. All findings have been made through active monitoring activities. Neither clinical signs (in affected poultry) nor mortality (in wild birds and sentinel ducks) have been associated with these infections.

It has previously been shown that active wild bird monitoring has limited use for detection of highly pathogenic AIV, for which passive monitoring measures seem more appropriate (Globig et al., 2009). However, the current situation emphasizes the usefulness also of active monitoring of wild bird populations as a guiding instrument with respect to the occurrence and prevalence of notifiable AIV subtypes (H5, H7) and the risk of transmission to poultry.

NATIONAL DISEASE REPORTS

E. COLI O157 (USA): 16 November 2010, CDC is collaborating with public health officials in Arizona, California, Colorado, New Mexico, Nevada, the Food and Drug Administration (FDA), and the Department of Agriculture's Food Safety and Inspection Service (FSIS) to investigate a multistate outbreak of human infections due to E. coli O157:H7. This is a rare strain of E. coli O157:H7 that has never been seen before in the PulseNet database. PulseNet is the national subtyping network made up of state and local public health laboratories and federal food regulatory laboratories that performs molecular surveillance of foodborne infections. To date, 37 persons infected with the outbreak strain of E. coli O157:H7 have been reported from 5 states. The number of ill persons identified in each state with this strain is as follows: AZ (19), CA (3), CO (10), NM (3), and NV (2). Dates of illness onset range from 16 Oct 2010 through 27 Oct 2010. Patients range in age from 1 to 85 years and the median age is 16 years. There have been 15 reported hospitalizations, 1 case of hemolytic uremic syndrome (HUS), and no deaths. Laboratory testing conducted on 2 opened packages of Bravo Farms Dutch Style Gouda Cheese purchased at Costco from 2 different case patient's homes has identified E. coli O157:H7 matching the outbreak strain. Preliminary laboratory testing conducted on an unopened (intact) package of Bravo Farms Dutch Style Gouda Cheese obtained from a Costco retail location has identified E. coli O157:H7. Preliminary laboratory testing conducted on 21 additional opened packages of Bravo Farms Dutch Style Gouda Cheese purchased at Costco from 2 other case patient's homes has indicated the presence of E. coli O157:H7. Additional laboratory testing is currently ongoing to confirm these results. FDA is working with its state partners to investigate Bravo Farms and to identify potential sources of contamination. FDA has collected product samples for testing. Additional investigative activities are ongoing and include:

- conducting surveillance for additional illnesses that could be related to the outbreak;
- gathering and testing food products that are suspected as possible sources of infection to see if they are contaminated with bacteria;
- following epidemiologic leads gathered from interviews with patients, food purchase information, or from patterns of processing, production, and/or distribution of suspected products;
- investigating where in the distribution chain the point of contamination could have occurred.

Costco is cooperating and assisting with this ongoing investigation. On 5 Nov 2010, Bravo Farms voluntarily recalled all Dutch Style Gouda cheese because it may be contaminated with E. coli O157:H7. The product was distributed primarily through Costco in Southern California, Nevada, Arizona, Utah, Colorado, and New Mexico in 1.5 lb. pieces. It was also distributed through various retail stores within California in 8 oz. pieces. An unopened (intact) package of Mauri Gorgonzola cheese tested as part of this ongoing investigation identified E. coli O157:H7, which does not match the outbreak strain. This cheese was cut, packaged and distributed by DPI Specialty Foods. On 10 Nov 2010, DPI Specialty Foods voluntarily recalled and warned consumers not to eat Mauri Gorgonzola cheese with sell-by dates of 01/13/11 and 01/14/11. The strain of E. coli O157:H7 identified in the gorgonzola cheese is rare with no human illnesses observed in the PulseNet database for the past several years. Based on current information, there is a link with the consumption of one of several cheeses offered for sampling and sale at the "cheese road show" that was held at Costco Warehouses between 5 Oct and 1 Nov 2010 in Arizona, California, Colorado, New Mexico, and Nevada. This cheese is Bravo Farms Dutch Style Gouda Cheese (Costco Item 40654), manufactured by Bravo Farms of Traver California. Consumers who have any of this cheese should not eat it. Instead, they should return the cheese to the place of purchase or dispose of it in a closed plastic bag placed in a sealed trash can. This will prevent people or animals, including wild animals, from eating it. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

CHOLERA (HAITI): 20 November 2010, Haiti's cholera epidemic will inevitably spread to the Dominican Republic but is likely to cause less devastation there, WHO said on Fri 19 Nov 2010. Many Haitians work in the Dominican Republic and because cholera infections often do not show symptoms, the waterborne disease could easily cross the border, WHO spokesman Gregory Hartl told a UN news briefing in Geneva. "It is completely expected that there will be cases in the Dominican Republic. We are seeing the 1st signs of these cases and we are working with the government of the Dominican Republic to prepare," Hartl said. He estimated the number of infections as "still in single digits, probably". More than 1110 people have died in Haiti from the cholera outbreak, and more than 18 000 have become sick. WHO spokesman Christian Lindmeier said that in the Dominican Republic better sanitary conditions meant the diarrheal illness should be less dangerous. "We don't expect it to be as high as it is in Haiti," he said of the severe illness and death rate. The deadly cholera epidemic that has claimed more than 1100 lives in Haiti has now spread to yet another vulnerable community: the largest prison in the country. "The situation is becoming very worrying in Port-au-Prince National Prison," said a statement from Riccardo Conti of the International Committee of the Red Cross (ICRC). The organization said 30 new cases of cholera have been reported in the last 3 days and 7 inmates have died. It fears that the death toll could significantly rise in the facility that houses 2000 inmates. "It's overcrowded and it can spread very, very fast," said Olga Miltcheva, the ICRC's spokeswoman in Haiti. "Our teams are supporting the authorities in the prison. They have been working several days there from morning to night." (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

UNDIAGNOSED DEATHS (UGANDA): 17 November 2010, A total of 13 people have been reported dead in Abim and Agago districts, following an outbreak of a strange disease in Abim. 20 cases have been reported in Abim district, out of whom 8 have already died. In neighboring Agago district, 5 cases have been reported in the sub counties of Omiya P'Chua and Paimol, which

border Abim district. Emmanuel Okech, an official from the Abim district health office, said out of the 20 cases, 8 have died, 2 have been quarantined, and another 10 have been discharged after their conditions improved. According to Okech, the affected persons have high fever, vomit blood, pass bloody stools, and also bleed from other openings like the nose and ears. "The victims usually die between 3 and 5 days and are suspected to be highly contagious," Okech said. Last week [week ending 14 Nov 2010], a team from the World Health Organization and the Ministry of Health went to Abim and are investigating the disease. According to Okech, samples were taken to the Uganda Virus Research Institute, but there is still no clue as to what disease is affecting the people there. "We were suspecting viral hemorrhagic infection, but results from the Uganda Virus Research Institute have ruled out Ebola, Marburg, and Lassa," Okech said. He said samples from the affected persons have now been flown to the Centers for Disease Control & Prevention (CDC) in Atlanta. On [Tue 16 Nov 2010], the district health officer of Agago district, Dr. Emmanuel Otto, announced that 5 people had died in Paimol and Omiya P'Chua from infections similar to those reported in Abim. Dr. Otto said he was also expecting a team of doctors from the World Health Organization and the Health Ministry in Agago to go to the affected sub-counties and conduct tests to ascertain the nature of the disease. According to Emmanuel Okech, more than 10 percent of patients treated in Abim Hospital are from neighboring Agago district, raising suspicions that the 5 who died in Agago could have contracted the disease while they went for treatment in Abim Hospital. Meanwhile, authorities in Abim district have put up an isolation center for those suspected to have contracted the disease. According to Abim district chairman Norman Ochero, the district health sector and its partners have pooled resources to set up an isolation center in Abim Hospital and Morulem Health Centre. "We have also advised people to maintain personal hygiene and to desist from handshakes," said Ochero. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

TRYPANOSOMIASIS, FOODBORNE (VENEZUELA): 14 November 2010, Authorities from the Health Corporation [Corposalud] of Tachira confirmed an outbreak of Chagas disease in the Andean region Junin municipality [near the border with Colombia], where 6 positive cases (one fatal) were identified. Relatives of the child who died of the disease last Sunday [7 Nov 2010] remain under observation since they were positive with the rapid test. The information was communicated by the director of Corposalud, Juan de Dios Delgado, who stated that it is probable that the outbreak spread via the oral route, through foods contaminated by the parasite, given that none of the patients presented with bites or scratches. Regarding the 5 infected patients, Delgado indicated that they are relatives of the 2 year old girl who died of the disease last Sunday [7 Nov 2010], and they are under observation in the Central Hospital in the city of San Cristobal. Delgado reported that epidemiologic and environmental health studies are under way in the suburban sector of La Palmita, in the city of Rubio, where the affected family resides and where another suspected case is being verified. About 42 samples have been obtained in order to detect other possible cases, but most have resulted negative. A technical team has been created to analyze the situation and determine the necessary measures to stop the spread of this outbreak of acute Chagas in the state. "Public health inspectors are actively searching for the source of infection, that is, the vector carrier of the parasite *Trypanosoma cruzi*, by means of an epidemiological barrier together with fumigation and cleanup of the area," he said. Delgado called on the residents of Junin to be alert to symptoms of abdominal pain, malaise, and fever, which might indicate a possible infection, and consult the closest health center to determine whether they have the disease. He also urged people to use potable water and follow the correct hygienic measures when handling food and in the areas where it is prepared in order to stop the spread of the disease. The director of Corposalud urged the people of Tachira to remain calm and abide by hygiene measures when handling food. He explained that when a "chipo" [*Rhodnius prolixus* or "kissing bug"] infected by the parasite (*T. cruzi*) bites, it defecates, and the infected feces enter the bloodstream of the person when he/she scratches the site, causing the disease. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://prepare.dhmm.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmm.maryland.gov/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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